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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/591,749	09/06/2006	Masafumi Hashimoto	SPL-06-1222	3421
35811 7590 10/05/2010 IP GROUP OF DLA PIPER LLP (US) ONE LIBERTY PLACE 1650 MARKET ST, SUITE 4900 PHILADELPHIA, PA 19103				
EXAMINER JACKSON, MONIQUE R				
ART UNIT 1787		PAPER NUMBER		
NOTIFICATION DATE 10/05/2010		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

pto.phil@dlapiper.com

### Office Action Summary

**Application No.**

10/591,749

**Applicant(s)**

HASHIMOTO ET AL.

**Examiner**

Monique R. Jackson

**Art Unit**

1787

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 21 September 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 23-25, 27-31, 33 and 34 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 23-25, 27-31, and 33-34 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB06)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notes of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Continued Examination Under 37 CFR 1.114*

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(c), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(c) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 9/21/10 has been entered.
2. The amendment filed 9/21/10 has been entered. Claims 26 and 32 have now been canceled. Claims 23-25, 27-31, and 33-34 are pending in the application. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### *Claim Rejections - 35 USC § 103*

3. Claims 23-25, 27-31, and 33-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP'211 in view of Okamura et al or Shigeta et al or EP'075 for the reasons recited in the prior office action and restated below. The teachings of JP'211 are discussed in detail in the prior office action. Though JP'211 teaches an improved adhesion polyimide film formed from a precursor composition comprising the same dianhydride and diamine as instantly claimed wherein the composition may further comprise an organic compound or inorganic particle filler additives, JP'211 does not teach that the organic compound is a titanate, aminosilane or epoxysilane coupling agent as instantly claimed. However, it is well established in the art that the **incorporation of a titanate or silane coupling agent into a polyimide precursor composition provides improved adhesion** of the resulting polyimide film as discussed in prior office actions and particularly taught by Okamura et al or Shigeta et al or

EP'075, with respect to silane coupling agents and wherein EP'075 specifically teach aminosilane coupling agents suitable for use in similar precursor compositions and final end uses as instantly claimed. Hence, one having ordinary skill in the art at the time of the invention would have been motivated to incorporate a conventional silane coupling agent, such as an epoxysilane or an aminosilane coupling agent which are known, obvious species of silane coupling agents utilized in the art, and more specifically utilizing an aminosilane coupling agent as taught by EP'075 or similar aminosilane in the invention taught by JP'211 given the predictable results and reasonable expectation of success

***Response to Arguments***

4. Applicant's arguments filed 9/21/10 have been fully considered but they are not persuasive. The Applicant points out that the deleted term from the JP'211 translation referred to an organic phosphorus compound and hence JP'211 does not teach the claimed aminosilane, epoxysilane or titanate compound. The Applicant further argues that the combination of JP'211 with the secondary references still would not result in a film wherein the heat resistance surface treatment agent comprises the claimed compound given that the resulting film would, at most, contain a heat resistant surface treatment agent which is an organic phosphorus compound. However, the Examiner respectfully disagrees. First, in terms of the teachings of JP'211 with regards to the organic phosphorus compound, JP'211 does not require the composition to include the organic phosphorus compound, reciting that the composition "may" include this compound. Further, JP'211 clearly recites that publicly known additives can be incorporated into the adhesion promoting, surface treatment polyimide precursor coating composition wherein inorganic filler particles are just one non-limiting example of such public known additive.

Hence, the Examiner agrees that JP'211 is silent with regards to the claimed aminosilane, epoxysilane or titanate compounds. However, the Examiner maintains her position that these compounds are "publicly known additives" and more particularly, public known additives in the art specifically incorporated for improving adhesion as taught by the secondary references, and given that JP'211 is interested in improved adhesion, one having ordinary skill in the art at the time of the invention would have been motivated to incorporate these known, conventional adhesion-promoting additives into the adhesion promoting coating taught by JP'211 to further improve or enhance the adhesion properties, given the predictable results and reasonable expectation of success. Therefore, the Examiner maintains her position that the instantly claimed invention would have been obvious over the prior art.

5. All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR

1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Monique R. Jackson whose telephone number is 571-272-1508. The examiner can normally be reached on Mondays-Thursdays, 10:00AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Callie Shosho can be reached on 571-272-1123. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Monique R Jackson/  
Primary Examiner, Art Unit 1787  
September 30, 2010